Response to June 22, 2001 EPA Comments on Draft Decision Document for RIA 101 Former South Weymouth Naval Air Station August 2, 2001

General Comments

1. *The EPA agrees with the Navy's conclusion of further action at this site. Not because of exceedances identified in the investigation, but because of uncertainties associated with results rejected in data validation and detection limits below screening criteria.*

Noted.

2. *Section 3.0: States that surface soil was sampled at this RIA; however, Section 2.1 only mentions subsurface soil, and the figures only show subsurface soil locations. Please clarify the nature of the surface soil sample collected. Was a true surface soil collected? If not, sampling should be redone in order to obtain a true surface soil sample. Further, results from composite samples should be viewed with caution because of the potential for diluting contaminated soil with uncontaminated soil. Please note that composite sample data cannot be used to do the risk assessments.*

A composite soil sample from the test pit was collected. No specific surface soil was collected at this RIA. Section 3.0 will be corrected. The objective of the sampling was to characterize the suspected buried material. The Navy will work with the EPA and DEP to determine the additional sampling requirements for this area.

3. *The Work Plan required that samples be collected from within the test pit. One composite sample was to be collected from the walls and one grab sample from the floor. In addition, source material samples were to be collected during this investigation. No source materials were collected due to the fact that no additional transformers were found within the test pit. Please provide rationale for failing to sample the source material that was found during the initial site investigation. Also, please present rationale for failing to collect the separate grab sample from the floor of the test pit.*

The transformer vendor was contacted regarding the material in the transformer in lieu of sampling the unit. Because the vendor was not able to determine whether PCBs were used in the specific model, the Navy intends to analyze the contents. At present, the Navy is locating the transformer. During the period between October 2000 and May 2001 it was misplaced.

The composite soil sample collected was a deviation from the work plan. No grab samples were collected.

4. *It is agreed that further sampling is required to fully evaluate risks to ecological receptors. Specifically for sediments, because only one sample was collected, significant uncertainty exists in the results. Further action should include an extra sediment sample to better characterize potential contamination in the stream.*

Noted. Additional sampling will be proposed in the work plan for this area. The Navy will work with EPA and DEP to develop the sampling plan for this location.

5. *The Navy regularly provides two site figures in decision documents and work plan addenda. These figures lack the necessary detail and often contain artifacts from previous uses for the figures. Both figures generally show the same features (sampling locations, etc.) and as such it is not clear why both are provided. Additionally, the figures use different units for the scales (feet vs. meters). These figures could be combined to a single high quality figure which has been carefully proofed to remove stray artifacts and which shows all relevant site features.*

The two figures have different purposes. The first figure typically is a locus map of the air base to show the general location of the site. The second figure provides a close-up view of the area and typically delineates the wetlands, if present in an area. Both maps are necessary to the decision document.

Specific Comments

1. *Section 1.1, Page 3 of 16: The text refers to Figure 1 for the location of RIA 101. The insert map on Figure 1 showing the location of the RIA on the basewide scale has not been updated for this particular site. Please check.*

The map will be updated.

2. *Section 4.1.1, Page 9 of 16: The table presenting laboratory reporting limits which were greater than the specified benchmarks should be clarified. As presented, it appears that the same sample is listed two times in this table. Please correct the information to indicate that one sample was a field duplicate.*

Agreed.

3. *Section 4.2.3, Page 10 and 11 of 16: In the tables showing exceedances of benchmarks for surface water, please change the column heading "Human Health Benchmark Value" to Ecological Benchmark Value".*

Agreed.

4. *Section 5.1, Page 12 of 16: The text states: "Because the sample is a composite sample the results should be compared to the higher maximum background concentration, which is the concentration found in surface soil." The rationale behind this statement is not clear. It would seem that a composite sample could be dominated by a high concentration of contaminant from either surface or subsurface soil (the composite sample cannot discriminate) and that the "conservative" approach would be to compare results to the lowest background value. Among the four inorganics considered in the table in section 5.1, two show higher background values in subsurface soils and two in surface soils. The table shows a "Y" for an exceedance of arsenic, the maximum result for which (2.9 J ppm) falls between the background for surface soils (5.3 ppm) and subsurface soils (1.89 ppm). Thus, it appears that the lower value was actually used in the evaluation summarized in the table in contradiction to the statement quoted above from the text. This procedure allowed for arsenic to be eliminated from further evaluation at this RIA. In the final paragraph of this section, however, the text returns to the argument that"...it can be assumed that the soil collected was surface soil and...can therefore can be compared to the site surface soil background concentrations. This argument is not persuasive. The discussion at the top of Page 13 is more to the point:*

arsenic is clearly in exceedance of the screening criteria adopted for the Phase II EBS: the issue to be resolved is whether or not this single, modest exceedance represents evidence of a site impact and a significant potential risk that demands further investigation.

Agree with comments made above. It is the Navy's opinion that these modestexceedances above subsurface soil background (1.89 ppm) do not represent evidence of a site impact or a significant potential release. The surface soil background value is 5.3 ppm. The two background exceedances of arsenic in soil (2.1 mg/kg in SB03-012 and 2.9 mg/kg in its duplicate, DUPEC1[11/2/98]) are significantly lower than the accepted surface soil background values. In addition the maximum concentration of arsenic at the site is significantly less than the MCP Method I S-1/GW-1 soil standards of 30 ppm. Therefore, the Navy does not believe that arsenic at this concentration poses a threat to human health or the environment.

5. *Section 5.1, page 13 of 16: Please remove the word "upon" from the sentence in this paragraph: "Therefore, although the concentration of arsenic in soil at this RIA slightly exceeds upon the established background screening value..."*

Agreed.

6. *Section 5.1, page 13 of 16: The final sentence of this section indicates that "the Navy does not believe that arsenic, by itself, at this concentration is a threat to human health or the environment." Please rephrase this sentence to indicate that "Based on the background comparison and comparison to applicable MCP standards, the Navy does not believe that arsenic is a contaminant of concern for this site."*

Agreed.

7. *Section 6.0, Page 15 of 16: The last paragraph of this section states that "...analytes at the RIA 101 exceed their respective benchmarks." While this is true (see, e.g., related comment bearing on the exceedance of the subsurface soil screening criterion for arsenic), the conclusion presented in the document is that further action is required not because of exceedances, but because of results rejected in data validation and because of detection limits below screening criteria. Please clarify. Additionally, clarify the statement that "detection limits may cause concern at this RIA."*

See Specific Comment #4 above for response to the exceedance of benchmarks. The referenced statement in Section 6.0 regarding analytes exceeding their respective benchmarks will be changed to indicate that due to elevated detection limits and rejected data, it is possible that analytes exist at RIA 101 at concentrations which exceed benchmark. The Navy believes that it is this possibility of analytes exceeding benchmark, which requires further action at this RIA. The statement that "detection limits may cause concern at this RIA" will be clarified.

8. *Section 6.0, page 15 of 16: Conclusions and Recommendations: The first table in Section 6.0 should be corrected to include 2-butanone as an analyte in surface water which had analytical results rejected during data validation.*

Agreed.

9. *Figure 1: Please clarify the location shown in the figure. There are two sediment samples with the same sample identifier, SD03-014. Also, the location of soil sample SB03-012 shown in Figure 1 does not agree with that in Figure 2.*

The Navy will review and correct figure as appropriate.